

SYSTEM FOR DETECTING EMBEDDED DATA IN AUDIO
NOTWITHSTANDING VARIATION IN PLAYBACK SPEED

Abstract of the Disclosure

- 5 In detecting embedded signals from audio, a problem arises if the audio playback speed is altered, changing the pitch of the audio signal. A pitch change in the audio signal is manifested as a frequency shift of any data signal embedded therein. If the embedded signaling relies on known frequency characteristics to effect decoding, pitch variation in the audio can prevent the embedded data signal from being successfully decoded. This problem is overcome by providing plural decoders, operating in parallel on the encoded audio signal, each
- 10 designed to detect the embedded signal at a different audio playback speed. For example, one detector can be arranged to detect the encoded signal if playback speed is 0.5% slow, another if playback speed is correct, etc. By such an arrangement, detection reliability is enhanced, without introducing undue delay in the detection process.

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